

Page 5, replace the paragraph beginning at line 24, with the following paragraph:

In Figure 1, reference numeral 1 indicates a reactor chamber in which the discharge arc is created, which may have walls formed of brass or stainless steel or similar. Electrodes 2 and 3 project into the reactor chamber 1 and are typically mounted by electrode-feeding mechanisms as are known in the art, so that the position of electrode 4 3, which maybe the anode, and electrode 2, which may be the cathode (the positions of the anode and cathode may be reversed), may be adjusted to create the arc, and in operation to maintain or if required adjust the arc. Typically the reactor will have one or more viewing ports in the side wall of the reactor enabling an operator or control sensor to monitor the arc and electrode positions. The reactor chamber 1 preferably includes a surrounding water jacket 4 through which water is circulated to cool the walls of the reactor chamber during operation, or other suitable cooling system. In the reactor shown in Figure 1 water under pressure is admitted through inlet 5 to the water jacket with the water flow being controlled by valve 6, and exits from outlet 7. A cooling system may also be arranged to cool the electrode(s).